The Astronomical Journal, 146:71 (2pp), 2013 September doi:10.1088/0004-6256/146/3/71
© 2013. The American Astronomical Society. All rights reserved. Printed in the U.S.A.

ERRATUM: "ADAPTIVE OPTICS IMAGES OF *KEPLER* OBJECTS OF INTEREST" (2012, AJ, 144, 42)

E. R. Adams[1], D. R. Ciardi[2], A. K. Dupree[1], T. N. Gautier III[3], C. Kulesa[4], and D. McCarthy[4]
[1] Harvard-Smithsonian Center for Astrophysics, 60 Garden St., Cambridge, MA 02138, USA
[2] NASA Exoplanet Science Institute, 770 South Wilson Ave., Pasadena, CA 91125, USA
[3] Jet Propulsion Laboratory, California Institute of Technology, 4800 Oak Grove Dr., Pasadena, CA 91109, USA
[4] Steward Observatory, The University of Arizona, 933 N. Cherry Ave., Tucson, AZ 85721, USA
Received 2013 June 17; published 2013 August 14

Online-only material: machine-readable and VO tables

Here we correct an overestimate of the limiting magnitudes placed on undetected companion stars, which was caused by a computational bug. In addition, we correct three observation dates which were misstated in Table 1, and restore three stars which were inadvertently omitted from the online limits table (KOIs 109, 121, and 126).

The main error was due to an incorrect value set in an IRAF subroutine, causing the background counts to be underestimated, and thus the limiting magnitudes to be overestimated by up to 1 mag. This error affected only the limit calculations for undetected objects; no changes are made to the properties of the actual stars detected nor to the occurrence rate of detected stars.

On average, the magnitude limits close to the star (within 1″) were least affected, with a change of only a few tenths of a magnitude, while more distant limits have been corrected by up to 1 mag. The average absolute difference in the corrected limits at each distance is as follows: 0.1 ± 0.1 mag for 0.″1, 0.2 ± 0.2 mag for 0.″2, 0.3 ± 0.3 mag for 0.″5, 0.4 ± 0.3 mag for 1″, 1.0 ± 0.6 mag for 2″, and 1 ± 0.3 mag for 4″.

The impact of the revised limits on any particular system will have to be evaluated on a case-by-case basis, as it depends strongly on the constraints from other follow-up resources and on the specific false positive scenarios that are possible. Generally speaking, scenarios that depend on detecting false positives close to the star (less than 1″) will be relatively unaffected compared to scenarios with more distant companion stars.

Table 1
Summary of Observations

Date (UTC)	Instrument	Number of KOIs[a]	Notes
2009 Nov 8	ARIES	4 (*J*, *Ks*) + 4 (*Ks*)	*f*/15 mode (unstable seeing)
2010 May 3	ARIES	6 (*J*, *Ks*)[b]	*f*/30 mode; electronics problems
2010 May 4	ARIES	17 (*J*, *Ks*)	*f*/30 mode; approached diffraction limit
2010 Sep 24	ARIES	3 (*J*, *Ks*)	*f*/30 mode
2010 Sep 26	ARIES	9 (*J*, *Ks*)	*f*/30 mode
2009 Sep 7	PHARO	6 (*J*)	1.″5 uncorrected seeing at *J*
2009 Sep 8	PHARO	12 (*J*)	2.″0 uncorrected seeing at *J*
2009 Sep 9	PHARO	10 (*J*)	0.″8 uncorrected seeing at *J*
2009 Sep 10	PHARO	7 (*J*)	0.″8 uncorrected seeing at *J*
2010 Ju1 1	PHARO	11 (*J*, *Ks*) + 1 (*Ks*)	2.″0 uncorrected seeing at *J*
2010 Jul 2	PHARO	11 (*J*, *Ks*)	1.″3 uncorrected seeing at *J*
2010 Jul 3	PHARO	8 (*J*)	1.″5 uncorrected seeing at *J*

Notes.
[a] Some objects were observed by both instruments and/or on more than one night, so numbers do not add up to 90 objects.
[b] Problems with instrument; all objects re-observed on May 4.

The corrected limits are shown in Table 2, and the plot showing the limits along with the detected stars are shown in a corrected Figure 3.

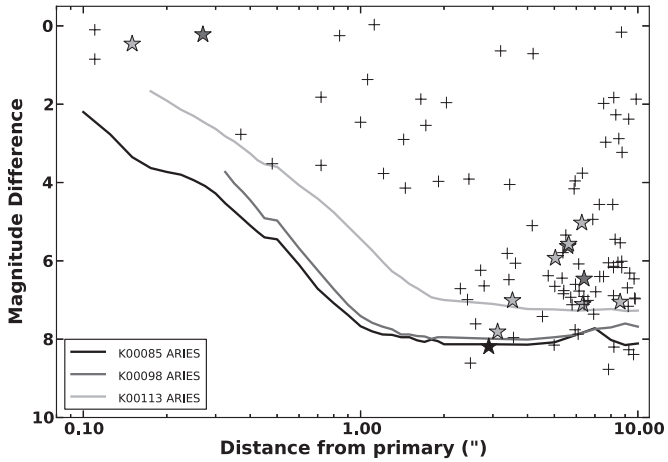

Figure 3. Detected companions and limits on additional stars in the *Ks*-band. All companion stars detected are shown as plus signs or stars. Detection limits and all known companions are shown for three systems: K00085 (black), one companion at 2″; K00098 (dark gray), one close companion (0.″3) and several more distant ones; and K00113 (light gray), one close companion (0.″15) and several more distant ones. Note that the detection limits vary from system to system by several magnitudes depending on the total integration time and the observational conditions.

Table 2
Limits on Nearby Stars for All KOIs

KOI	Instr.-Filter	Target Mag	FWHM	Limiting Δ Mag for Annulus Centered at					
			(″)	0.″1	0.″2	0.″5	1″	2″	4″
K00005	PHARO-J	10.542	0.23	...	...	3.11	5.4	7.3	7.78
K00005	Kp	11.665	0.23	...	...	3.33	5.77	7.82	8.35
K00007	PHARO-J	11.122	0.06	5.02	5.32	6.67	8.31	8.79	8.83
K00007	Kp	12.211	0.06	5.43	5.76	7.23	9.0	9.52	9.56
K00008	PHARO-J	11.371	0.08	3.14	3.92	5.24	7.48	8.59	8.69
K00008	Kp	12.45	0.08	3.44	4.28	5.72	8.13	9.33	9.44
K00010	PHARO-J	12.576	0.09	2.63	3.41	4.52	6.53	8.23	8.56
K00010	Kp	13.563	0.09	3.09	3.92	5.12	7.3	9.13	9.49
K00011	PHARO-J	12.236	0.06	4.19	4.91	6.33	7.98	8.43	8.49
K00011	Kp	13.496	0.06	4.45	5.23	6.77	8.56	9.04	9.1
K00013	ARIES-J	9.466	1.2	...	...	...	...	3.22	5.53
K00013	Kp	9.958	1.2	...	...	...	...	4.08	6.46
K00013	ARIES-Ks	9.425	0.69	...	...	...	2.69	3.6	4.78
K00013	Kp	9.958	0.69	...	...	...	4.11	4.92	6.23
K00013	PHARO-J	9.466	0.12	...	3.39	4.18	6.49	7.94	8.63
K00013	Kp	9.958	0.12	...	4.24	5.02	7.49	9.06	9.81
K00017	PHARO-J	12.001	0.1	2.13	2.95	4.41	6.53	7.84	7.97
K00017	Kp	13.303	0.1	2.18	3.07	4.64	6.93	8.36	8.49
K00018	PHARO-J	12.115	0.07	3.58	4.25	5.66	7.68	8.4	8.48
K00018	Kp	13.369	0.07	3.8	4.52	6.05	8.23	9.01	9.1
K00020	PHARO-J	12.406	0.11	...	3.1	4.42	6.56	8.18	8.41
K00020	Kp	13.438	0.11	...	3.52	4.95	7.26	9.02	9.26

(This table is available in its entirety in machine-readable and Virtual Observatory (VO) forms in the online journal. A portion is shown here for guidance regarding its form and content.)